

UNITED STATES DISTRICT COURT  
DISTRICT OF OREGON  
PORTLAND DIVISION

LIGHTFORCE USA, INC. d/b/a/  
NIGHTFORCE OPTICS and NIGHTFORCE  
USA; and HVRT CORP.,

Case No. 3:17-cv-01153-AC

OPINION AND ORDER

Plaintiffs,

v.

LEUPOLD & STEVENS, INC.,

Defendant.

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ACOSTA, Magistrate Judge:

*Introduction*

In this patent case the court must construe the language found in various patents owned by plaintiff HVRT and licensed by plaintiff Lightforce USA, Inc., d/b/a Nightforce Optics and Nightforce USA (collectively “Plaintiffs”). The patents-in-suit, identified below, disclose a gunsight reticle containing primary and secondary cross-hairs, as well as other markings, intended to aid

shooters in determining the proper aiming point. The court conducted a *Markman* hearing on the proper construction of several disputed terms on December 11, 2018. After consideration of the filings, materials, the evidence and arguments presented at the hearing, and the supplemental briefing filed after oral argument, the court construes the disputed terms as set forth below.

### *Background*

Plaintiffs filed this lawsuit alleging defendant Leupold & Stevens, Inc. (“Leupold”) has been, and is still, infringing on at least one claim of the following patents-in-suit:<sup>1</sup>

United States Patent No. 6,453,595, filed March, 6,2000 (the “595 Patent”), entitled *Gunsight and Reticle Therefor*.<sup>2</sup>

United States Patent No. 8,707,608, filed July 30, 2012 (the “608 Patent”), entitled *Apparatus and Method for Calculating Aiming Point Information*.<sup>3</sup>

United States Patent No. 8,966,806, filed September 12, 2012 (the “806 Patent”), entitled *Apparatus and Method for Calculating Aiming Point Information*.<sup>4</sup>

United States Patent No. 9,335,123, filed January 15, 2014 (the “123 Patent”), entitled

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<sup>1</sup>In the First Amended Complaint, Plaintiffs allege Leupold has infringed on at least one claim of United States Patent No. 8,109,029, entitled *Apparatus and Method for Calculating Aiming Point Information*, and United States Patent No. 8,656,630, entitled *Apparatus and Method for Aiming Point Calculation*. (First Am. Compl. Exs. B, C.) However, these patents are not referenced or relied on by the parties with the regard to the construction of the disputed terms and will not be considered at this time.

<sup>2</sup>The ‘595 Patent is Exhibit A to the First Amended Complaint, ECF No. 20-1.

<sup>3</sup>The ‘608 Patent is Exhibit D to the First Amended Complaint, ECF No. 20-4.

<sup>4</sup>The ‘806 Patent is Exhibit E to the First Amended Complaint, ECF No. 20-5.

*Apparatus and Method for Aiming Point Calculation.*<sup>5</sup>

The '608 Patent, the '806 Patent and '123 Patent stem from a series of continuation and continuation-in-part applications, including that of the '595 Patent. At this time, the parties seek the court's direction on the proper construction of the terms "cross-hair," "primary vertical cross-hair," "reticle," "intersecting"/"intersection," and "rangefinder markings"/"rangefinding markings"/"rangefinder."

*Legal Standard*

The analysis of a patent infringement action involves two steps: (1) determination of the meaning and scope of the patent claims alleged to be infringed; and (2) comparison of the accused method or product to the properly construed claims. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 (Fed. Cir. 1995)(en banc), *aff'd* 517 U.S. 370 (1996). "It is a 'bedrock principle' of patent law that 'the claims of a patent define the invention to which the patentee is entitled the right to exclude.'" *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005)(en banc) (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Systems, Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). "To ascertain the scope and meaning of the asserted claims, we look to the words of the claims themselves, the specification, the prosecution history, and any relevant extrinsic evidence." *Retractable Technologies, Inc. v. Becton, Dickinson and Co.*, 653 F.3d 1296, 1303 (Fed. Cir. 2011) (citing *Phillips*, 415 F.3d at 1315-1317).

In construing claim language, the words of a claim "are generally given their ordinary and customary meaning[.]" *Vitronics Corp. v. Conceptronics, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996). The ordinary and customary meaning of a claim term is the meaning that the term would have to a

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<sup>5</sup>The '123 Patent is Exhibit F to the First Amended Complaint, ECF No. 20-6.

person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application. *Phillips*, 415 F.3d at 1313. “In some cases, the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words.” *Id.* at 1314.

The court looks at the words of the claims themselves, both asserted and unasserted. *Id.* “[T]he context in which a term is used in the asserted claim can be highly instructive.” *Id.* For example, the Federal Circuit has consistently held that interpreting a claim term in a manner that renders subsequent claim language superfluous is improper. *See Stumbo v. Eastman Outdoors, Inc.*, 508 F.3d 1358, 1362 (Fed. Cir. 2007) (holding that a definition that renders claim language superfluous is “a methodology of claim construction that this court has denounced”); *see also Merck & Co. v. Teva Pharms. USA, Inc.*, 395 F.3d 1364, 1372 (Fed. Cir. 2005) (“A claim construction that gives meaning to all the terms of the claim is preferred over one that does not do so.”). Similarly, the doctrine of claim differentiation recites the principle that the limitations in each claim are presumed to be distinct from one another. *See Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 910 (Fed. Cir. 2004) (holding that the presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim).

However, the claims “do not stand alone.” *Phillips*, 415 F.3d at 1315. Rather, they “must be read in view of the specification, of which they are a part.” *Markman*, 52 F.3d at 978. Accordingly, the specification “is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.” *Vitronics*, 90 F.3d at 1582. The specification is especially important because “a patentee may choose to be his own

lexicographer and use terms in a manner other than their ordinary meaning, as long as the special definition of the term is clearly stated in the patent specification or file history.” *Id.* As such, “it is always necessary to review the specification to determine whether the inventor has used any terms in a manner inconsistent with their ordinary meaning. The specification acts as a dictionary when it expressly defines terms used in the claims or when it defines terms by implication.” *Id.* Although the specification is relevant to claim construction, limitations found only in the specification are not to be read into the claims if the claim language is broader than the specification. *See Electro Medical Sys., S.A. v. Cooper Life Sciences*, 34 F.3d 1048, 1054 (Fed. Cir. 1994) (“although the specifications may well indicate that certain embodiments are preferred, particular embodiments appearing in a specification will not be read into the claims when the claim language is broader than such embodiments”); *see also Teleflex, Inc. v. Ficosa N.A. Corp.*, 299 F.3d 1313, 1327 (Fed. Cir. 2002) (refusing to import a limitation found in the specification even when the specification disclosed only one embodiment).

In addition to the specification, the court should consult the prosecution history of the patent, if in evidence. *Phillips*, 415 F.3d at 1317. Although typically less helpful than the specification, the prosecution history may demonstrate how the inventor understood the invention and whether the inventor limited the scope of the invention during prosecution to avoid reading on prior art. *Id.* “Under the doctrine of prosecution disclaimer, a patentee may limit the meaning of a claim term by making a clear and unmistakable disavowal of scope during prosecution.” *Purdue Pharma L.P. v. Endo Pharmaceuticals Inc.*, 438 F.3d 1123, 1136 (Fed. Cir. 2006). “A patentee could do so, for example, by clearly characterizing the invention in a way to try to overcome rejections based on prior art.” *Computer Docking Station Corp. v. Dell, Inc.*, 519 F.3d 1366, 1374 (Fed. Cir. 2008).

However, “[p]rosecution disclaimer does not apply to an ambiguous disavowal.” *Id.* at 1375.

Finally, if the ordinary and customary meaning of a claim term is not apparent from the intrinsic evidence, courts are authorized to consult extrinsic evidence. *Vitronics*, 90 F.3d at 1576. Extrinsic evidence “consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises.” *Markman*, 52 F.3d at 980.

### *Discussion*

#### *I. “Cross-Hair”*

The term “cross-hair” is found in each of the patents-at-issue describing a figure or symbol found on a reticle. Specifically, Claim 1 of the ‘595 Patent describes a:

reticle having an optical center and a plurality of aiming points, said aiming points formed by a primary vertical cross-hair, a primary horizontal cross-hair intersecting said primary vertical cross-hair to form an upper right quadrant, an upper left quadrant, a lower right quadrant, and a lower right quadrant, a plurality of secondary horizontal cross-hairs intersecting said primary vertical cross[-]hair and evenly spaced a predetermined distance along said primary vertical cross-hair, a plurality of secondary vertical cross-hairs intersecting at least some of said secondary horizontal cross-hairs and evenly spaced a predetermined distance along at least some of said secondary horizontal cross-hairs, each said intersecting cross-hair forming one of said plurality of aiming points, and rangefinding markings.

(‘595 Patent col. 13 ll. 30-44.) Plaintiffs define the term “cross-hair” broadly, asserting the proper construction should be “a marking on a reticle that intersects a least a second cross-hair to create an aiming point.” (Pls.’ Opening Claim Construction Brief, ECF No. 40 (“Pls.’ Brief”), at 6.) Leupold, on the other hand, argues the term should be construed to include only “a continuous line or fiber in a reticle that intersects a least a second cross-hair to create an aiming point.” (Def.’s Opening Claim Construction Brief, ECF No. 42 (“Def.’s Brief”), at 10.)

The court rejects Plaintiffs’ proposed definition as overly broad based on the language of the

'595 Patent. The term "marking on a reticle that intersects a least a second cross-hair" would encompass more than just vertical and horizontal lines. It would also include aiming points identified in Claim 1 and depicted in Figure 12 of the '595 Patent, as well as ghost rings, referenced in the specifications and depicted in Figures 11 and 12 of the '595 Patent, both of which interact with a "cross-hair" in some manner. ('595 Patent figs. 11, 12, col. 12 ls. 37-50.) Consequently, construing the term "cross-hairs" so broadly is contrary to the language of the patents-at-issue.

Moreover, Plaintiffs distinguish between "marking" and "cross-hair" in their proposed definition by describing a "marking" that intersects a "second cross-hair," not a "second marking," defeating their argument that "marking" and "cross-hair" are synonymous. The language of Claim 1 of the '595 Patent similarly distinguishes between cross-hairs and markings. By describing cross-hair in detail and then referencing "rangefinding markings," rather than "other markings," the '595 Patent's language implies that cross-hairs are distinct from markings. ('595 Patent col. 13 ls. 30-44.) So, while cross-hairs may qualify as a "marking" for purposes of the '595 Patent, not all markings are cross-hairs, making Plaintiffs' attempt to use the terms interchangeably inappropriate.

Leupold's definition of a "cross-hair" as a "continuous line or fiber" is more consistent with the claim language and specifications of the '595 Patent. The '595 Patent suggests the primary vertical and horizontal cross-hairs may be used as the arms of the rangefinder "obviating the need for additional lines in any quadrant," and creating an inference that both an arm and a "cross-hair" are lines. ('595 Patent col. 7 ll. 6-10.) Additionally, the '595 Patents refers to cross-hairs as "lines" in a discussion of the preferred method of determining the thickness of the cross-hairs. ('595 Patent col. 6 ls. 62-67, col. 7 ls. 33-37.) For example, when discussing the proper thickness of the primary vertical and horizontal cross-hairs in the preferred embodiment, the '595 Patent provides: "[t]he

thickness of the lines are also preferably determined with reference to the range-finding scale used.” (‘595 Patent col. 6 ls. 62-63.) Finally, the term “hair” in and of itself conjures visions of a line.

The embodiments of the invention described in the specifications of the ‘595 Patent provide further support for characterizing a “cross-hair” as a line. The brief descriptions of the drawings when compared to the drawings described reveal the primary horizontal and vertical cross-hairs to be lines. (‘595 Patent figs. 13, 14, 15, col. 4 ls. 48-63.) Similarly, references to the drawings in the detailed description of the invention identify lines of various lengths passing through at least one other line at a ninety degree angle as a “cross-hair.” (‘595 Patent figs. 2, 10, col. 5 ls. 60-64, col. 11 l.66-col. 12 l. 6.)

Leupold’s inclusion of the term “continuous” in its definition of a cross-hair is also supported by the specifications and illustrated embodiments of the ‘595 Patent. All of the lines identified as cross-hairs in the embodiments are continuous and uninterrupted, with the possible exception of Figure 11, where a ghost circle “circumscribes” other markings on the reticle, and Figure 12, where an aiming dot is “superimposed over the optical center.” (‘595 Patent figs. 11, 12, col. 12 ls. 37-51, 53-58.) The use of the terms “circumscribe”<sup>6</sup> and “superimposed”<sup>7</sup> imply the additional markings do not cut into any affected cross-hair, but merely overlap it.

Leupold’s inclusion of the phrase “or fiber” in its definition is not necessary or consistent with the language of the ‘595 Patent however. In the detailed description, the ‘595 Patent identifies

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<sup>6</sup>“Circumscribe” generally means “1. To draw a line around, encircle.” THE AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE, 338 (5th ed. 2011). An online dictionary defines “circumscribe” as “draw (a figure) around another, touching it at points but not cutting it.” ENGLISH OXFORD LIVING DICTIONARY, <https://en.oxforddictionaries.com/definition/circumscribe>.

<sup>7</sup>“Superimpose” is defined as “1. To lay or place (something) on or over something else.” THE AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE, 1749 (5th ed. 2011).

“etching, printing, or applying hairs or wires of known diameter” as methods in which to place the “cross-hair” on the reticle. (‘595 Patent col. 5 ls. 56-60.) The term “fiber” could encompass the “hairs or wires” referenced in the ‘595 Patent. However, such reference relates to the method in which to depict a cross-hair on a reticle, not the proper definition of the term “cross-hair.”

The court finds the proper definition of the term “cross-hair” for purposes of the ‘595 Patent is “a continuous line in a reticle that intersects a least a second continuous line to create an aiming point.” Testimony from Leupold’s expert supports this construction to some degree. Carl Taylor (“Taylor”) stated that a person of ordinary skill in the art would have been familiar with the term “cross-hair” and would understand “cross-hairs” to mean “the two most prominent lines on the reticle that divide a reticle into four defined quadrants.” (Taylor Decl. dated May 4, 2018, ECF No. 39, ¶ 35.) Taylor then opined Leupold’s proposed construction of “cross-hair” as a “continuous line” to be consistent with the general understanding of the term as instructed by the language of the patents-at-issue. (Taylor Decl. ¶ 36.) Taylor’s opinion that two continuous lines comprise “cross-hairs” is consistent with the court’s determination that a cross-hair as used in the ‘595 Patent is a continuous line that intersects a least a second continuous line.<sup>8</sup>

The parties agree the terms at issue should be construed consistently, that is given one common definition applicable to all the patents-in-suit. Plaintiffs argue the patents-in-suit derive from a common parent application, as revealed on the face of the respective patents, and have a formal familial relationship. As a result, they assert “material from the various specifications of the

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<sup>8</sup>This definition also comports with the general definition of “cross-hair” which is “[e]ither of two fine strands of wire crossed in the focus of the eye piece of a optical instrument and used as a calibration or sighting reference.” THE AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE, 434 (5th ed. 2011). A “strand of wire” equates to a “continuous line.”

patents-in-suit is relevant to the claim construction of claim terms throughout the patent family, and the terms of the patents-in-suit should be construed consistently.” (Pls.’ Suppl. Brief Re Claim Construction, ECF No. 52 (“Pls.” Suppl. Brief”), at 3.) Leupold claims to the extent Plaintiffs rely on a 1997 priority filing date, new matter added in the ‘608 Patent and the ‘806 Patent, which derived from continuation-in-part applications, is not relevant to the construction of terms found in the ‘595 Patent.

Generally, patents generated from the same parent application should be construed in a consistent manner. *See NTP, Inc. v. Research In Motion, Ltd.*, 418 F.3d 1282, 1294 (Fed. Cir. 2005)(“Because NTP’s patents all derive from the same parent application and share many common terms, we must interpret the claims consistently across all asserted patents.”). To this end, courts regularly consider the prosecution history, specifications, embodiments, and claims of related patents when interpreting claim language common to the patents. *Microsoft Corp. v. Multi-Tech Sys. Inc.*, 357 F.3d 1340, 1347-1350 (Fed. Cir. 2004)(considering statements made in connection with continued prosecution of sibling applications containing identical specifications). This is particularly true when the subsequent patent is a continuation application, wherein the disclosure “must be the same as that of the original application; i.e., the continuation should not include anything which would constitute new matter if inserted in the original application.” *iLife Techs. Inc. v. Body Media, Inc.*, 90 F. Supp. 3d 415, 424 (W.D. Pa. 2015)(quoting the Manual of Patent Examining Procedure (“MPEP”) § 201.07). However, the ‘608 Patent, the ‘806 Patent, and the ‘123 Patent were not the result of continuation applications with regard to the ‘595 Patent, but rather a combination of continuation and continuation-in-part patents filed between 1998 and 2014.

A continuation-in-part application is “an application filed during the lifetime of an earlier

nonprovisional application, repeating some substantial portion or all of the earlier nonprovisional application and adding matter not disclosed in the said earlier nonprovisional application.” *iLife*, 90 F. Supp. 2d at 424 (quoting MPEP § 201.08). “New matter is defined as subject matter not included in the original specification, claims, or drawings of a patent application.” *iLife*, 90 F. Supp. 2d at 426. Both patent examiners and courts must “evaluate whether the invention described by the independent claims of a child patent were ‘adequately disclosed’ by the parent application.” *Id.* (citations omitted). Matter disclosed for the first time in a continuation-in-part application “should not be used to construe claim terms appearing in the parent patent, even if the claim terms are common.” *Id.* at 427 (citing *Goldenberg v. Cytogen, Inc.*, 373 F.3d 1158, 1167-68 (Fed. Cir. 2004)). The Federal Circuit explained new matter added by a continuation-in-part application is not part of the intrinsic evidence of the underlying patent and is not available to construe the claims of the earlier patent. *Goldenberg*, 373 F.3d at 1168; *see also In the Matter of Certain Rubber Antidegradants*, USITC Inv. No. 337-TA-533, 2008 WL 1727623, at \*11 (ITC April 1, 2008), *rescinded on other grounds*, 511 F.3d 1132 (Fed. Cir. 2008)(“Flexsys has provided no authority for the proposition that the additional disclosure of a [continuation-in-part] application, at least to the extent it constitutes the new matter, may be used to construe the claims of an ancestor application. In our view, such use would effectively treat the new matter in a [continuation-in-part] application as if it were present in the ancestor application, a contradiction of the very definition of a [continuation-in-part] application.”)

The prohibition on considering new matter in construing claims of an earlier patent furthers the recognized purpose of a patent claim, which is to “define the precise scope of a claimed invention, thereby ‘giv[ing] notice both to the examiner at the U.S. Patent and Trademark Office

during prosecution, and to the public at large, including potential competitors, after the patent has issued. *Bicon, Inc. v. Straumann Co.*, 441 F.3d 945, 950 (Fed. Cir. 2006)(quoting *Johnson & Johnston Assocs., Inc. v. R. E. Serv. Co.*, 285 F.3d 1046, 1052 (Fed. Cir. 2002)(*en banc.*)). It is also important in determining the filing date applicable to certain claims.

A continuation-in-part application contains the same disclosure as a previous application, but also adds some new matter not present in the disclosure of the original application. Claims in a continuation-in-part application which are supported by the disclosure of the original application obtain the benefit of the filing date of the original application. However, claims in a continuation-in-part application which must rely for support on the additional disclosure in the continuation-in-part application are only entitled to the filing date of the continuation-in-part application, not the filing date of the original application. The difference in filing dates means that there may be art which is prior art as to claims which require the additional disclosure for support but which is not prior art as to claims supported by the original disclosure.

*Certain Rubber Antidegradants*, 2008 WL 1727623, at \*25 n.6.

The claims, specifications, and drawings of the patents-in-suit filed after the ‘595 Patent, specifically the ‘608 Patent, the ‘806 Patent, and the ‘123 Patent,<sup>9</sup> appear to require a different construction of the generic term “cross-hair.” Plaintiffs contend the language found in Claims 2 and 7 of the ‘608 Patent and the ‘806 Patent refutes Leupold’s claim “cross-hairs” should be defined as “lines.”

Claim 1 of the ‘608 Patent, which Plaintiffs claim has been infringed, describes:

A reticle, comprising: a) a simultaneously visible primary horizontal cross-hair; b) a simultaneously visible primary vertical cross-hair; c) a plurality of simultaneously visible secondary horizontal cross-hairs intersecting at predetermined distances said simultaneously visible primary vertical cross-hair wherein said primary vertical cross[-]hair and said secondary horizontal cross-hairs are selected from the group

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<sup>9</sup>Neither party relies on language from the ‘123 Patent in support of their definition of “cross-hair.” However, Plaintiffs did offer figures from the ‘123 Patent in support of their argument “cross-hair” includes discontinuous markings.

consisting of etched cross-hairs, engraved cross-hairs, and printed cross-hairs; and d) a plurality of simultaneously visible secondary vertical cross-hairs intersecting at predetermined distances at least some of said secondary horizontal cross-hairs wherein each said secondary vertical cross-hair intersects one and only one said secondary horizontal cross-hair and wherein said secondary vertical cross-hairs are selected from the group consisting of etched cross-hairs, engraved cross-hairs, and printed cross-hairs, wherein an intersection of at least one of said plurality of said simultaneously visible secondary vertical cross-hairs and at least one of said plurality of simultaneously visible secondary horizontal cross-hairs provides an aiming point.

(‘608 Patent col. 38 ls. 41-60.) This independent claim is similar to that described in the ‘595 Patent and is consistent with the court’s definition of “cross-hair.” However, the description of each of the primary cross-hairs as a “line” in dependent Claims 2 and 7, not present in the ‘595 Patent and, therefore, new matter, creates an issue. (‘608 Patent col. 38 ls. 61-62, col. 39 ls. 4-5.)<sup>10</sup>

Applying the definition of cross-hair now applicable to the ‘595 Patent – a “continuous line that intersects a least a second continuous line” – to Claim 1 of the ‘608 Patent renders language found in Claims 2 and 7 of the ‘608 Patent superfluous. If the “cross-hairs” described in Claim 1 of the ‘608 Patent are lines, the description of the primary horizontal and vertical cross-hairs as a line in the dependent claims is unnecessary and does not differentiate from the reticle described in Claim 1. Consequently, for the purposes of Claim 1 in the ‘608 Patent, “cross-hair,” at least with regard to the primary horizontal and vertical cross-hairs, arguably must be defined as something other than a line. *See Liebel-Flarsheim*, 358 F.3d at 910 (“As this court has frequently stated, the presence of a dependent claim that adds a particular limitation raises a presumption that the limitation in question is not found in the independent claim.”) However, if the “cross-hairs” described in Claim 1 of the ‘608 Patent are something other than a line, such claim was not previously disclosed in the ‘595 Patent and is not entitled to the benefit of the earlier filing application date. *See PowerOasis, Inc.*

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<sup>10</sup>Plaintiffs allege Leupold has infringed on Claims 2 and 7 of the ‘608 Patent.

*v. T-Mobile USA Inc.*, 522 F.3d 1299, 1306 (Fed. Cir. 2008)(quoting *In re Chu*, 66 F.3d 292, 297 (Fed. Cir. 1995) (“It is elementary patent law that a patent application is entitled to the benefit of the filing date of an earlier filed application only if the disclosure of the earlier application provides support for the claims of the later application, as required by 35 U.S.C. § 112.”)).

Similarly, Claim 1 of the ‘806 Patent describes:

A reticle, comprising:

- a) a primary horizontal cross-hair;
- b) a primary vertical cross-hair;
- c) a plurality of secondary horizontal cross-hairs intersecting at evenly spaced distances said primary vertical cross-hair wherein said primary vertical cross[-]hair and said secondary horizontal cross-hairs are selected from the group consisting of etched cross-hairs, engraved cross-hairs, printed cross-hairs, wire cross-hairs, nano-wire cross-hairs, spider web cross-hairs, projected cross-hairs, illuminated cross-hairs, and colored cross-hairs; and
- d) a plurality of secondary vertical cross-hairs intersecting at predetermined distances at least some of said secondary horizontal cross-hairs wherein said secondary vertical cross-hairs are selected from the group consisting of etched cross-hairs, engraved cross-hairs, printed cross-hairs, wire cross-hairs, nano-wire cross-hairs, spider web cross-hairs, projected cross-hairs, illuminated cross-hairs, and colored cross-hairs, wherein each of said plurality of secondary vertical cross-hairs is an uninterrupted straight line, wherein each of said secondary vertical cross-hair intersects one and only one said secondary horizontal cross-hair, and wherein an intersection of at least one of said plurality of said secondary vertical cross-hairs and at least one of said plurality of said secondary horizontal cross-hairs provides an aiming point.

(‘806 Patent col. 38 l. 46- col.39 l. 6.) Claim 1 clearly describes “secondary vertical cross-hairs” as an “uninterrupted straight line,” which is consistent with the court’s definition of “cross-hair” as a “line” under the ‘595 Patent. However, the language of Claims 2 and 7 of the ‘806 Patent mirror that of the same claims of the ‘608 Patent and also violates the doctrine of claim differentiation, with

regard to the primary vertical and horizontal cross-hairs, based on the court's finding a "cross-hair" is a "line." ('806 Patent col. 39 ls.7-8, 17-18.)

To the extent the limitations found in Claims 2 and 7 of the '608 Patent and the '806 Patent is new matter not previously disclosed in the '595 Patent, the limitations should not be considered when construing the terms of the '595 Patent. Even assuming the limitations are not new matter, the doctrine of claim differentiation creates only a presumption "which may be overcome by contrary discussion dictated by the written description or prosecution history." *Seachange Int'l, Inc. v. C-COR, Inc.*, 413 F.3d 1361, 1369 (Fed. Cir. 2005). The detailed description of both the '608 Patent and the '806 Patent include language similar to the '595 Patent in discussing the "thickness of the lines" when referring to the preferred thickness of the cross-hairs and in providing: "[i]t is possible to use the primary vertical cross-hair and/or primary horizontal cross-hair as the rangefinder, obviating the need for additional lines. . . ." ('608 Patent col.18 l. 66-col. 19 l. 8, col. 19 ls. 17-20; '806 Patent col. 19 ls. 8- 17, 25-28.) The identification of "cross-hairs" as "lines" in the written description of the invention overcomes the presumption of claim differentiation and requires the reference to "cross-hairs" in independent Claims 1 of both the '608 Patent and the '806 Patent to be defined as "lines," reading the limitation found in independent Claim 2 and 7 of the '608 Patent and the '806 Patent into dependent Claim 1, making the independent claims superfluous.

Plaintiffs also offer the language of dependent claims, as well as figures, of the '608 Patent, the '806 Patent, the '123 Patent, to rebut Leupold's argument "cross-hairs" are continuous lines. Dependent Claims 4 and 9<sup>11</sup> of the '608 Patent and the '806 Patent describe the primary vertical cross-hair and the primary horizontal cross-hair, respectively, as an "uninterrupted straight line".

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<sup>11</sup>Plaintiffs do not allege Leupold has infringed on these claims.

(‘608 Patent col.38 ls. 64-65, col. 39 ls. 7-8; ‘806 Patent col. 39 ls. 10-11, 20-21.) Plaintiffs argue “uninterrupted” is analogous to “continuous” and the inclusion of the term “continuous” in independent Claim 1 would render the limitation in Claims 4 and 9 meaningless. Plaintiffs also contend the language of the ‘608 Patent and the ‘806 Patent, which provides “[t]he cross hairs may be of any length, width and may comprise contiguous lines [or] may have gaps” contradicts Leupold’s proposed construction of a “cross-hair” as a “continuous line.” (‘608 Patent col. 4 ls. 8-10; ‘806 Patent col. 4 ls. 11-13.) Leupold argues “contiguous” refers not to the continuity of the cross-hair, but rather to the location of the cross-hair with regard to other cross-hairs.

It appears Plaintiffs confuse the term “contiguous” with the term “continuous.” “Continuous” is defined as “1. Uninterrupted in time, sequence, substance, or extent. 2. Attached together in repeated units. 3. Of or relating to a line or curve that extends without a break or irregularity,” while “contiguous” means “1. Sharing an edge or boundary; touching. 2. Neighboring; adjacent.” THE AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE, 397, 398 (5th ed. 2011). The reference to “gaps” in the language relied on by Plaintiffs clearly relates to the term “contiguous” leaving the option for two or more cross-hairs to touch or share a boundary, or be adjacent but separated by a gap. This reference does not defeat Leupold’s claim “cross-hairs” are continuous.

Claims 4 and 9 describe an “interrupted straight line,” not an uninterrupted or “continuous” line. Defining a “cross-hair” as a “continuous line” for the purposes of Claim 1 would not alone render Claims 4 and 9 meaningless. However, Claims 4 and 9 read on Claims 3 and 8, which define a cross-hair as a “straight line.” (‘608 Patent col. 38 l. 63, col. 39 l. 6; ‘806 Patent col. 39 ls. 9, 19.) Consequently, construing a “cross-hair” as a “continuous line” in Claim 1 would mean Claims 3 and

8 identify a “cross-hair” as a “continuous straight line,” making Claims 4 and 9 redundant. In any event, the figures, and description of the figures in the ‘595 Patent, which are similarly present in the ‘608 Patent and the ‘806 Patent, support the conclusion a “cross-hair” is a “continuous line,” overruling any claim differentiation presumption. (‘608 Patent figs. 11, 12, col. 37 ls. 45-49, 54-59; ‘806 Patent figs. 11, 12, col. 37 ls. 50-54, 59-64.)

At oral argument, Plaintiffs offered figures found in the ‘608 Patent, the ‘806 Patent, and the ‘123 Patent in support of their position that “cross-hairs” are not necessarily continuous. None of these figures are found in the ‘595 Patent and constitute new matter. Accordingly, the court should not consider them when construing “cross-hair.” Moreover, the figures relied on by Plaintiffs are not necessarily inconsistent with a continuous line.

Figure 31 of the ‘608 Patent and the ‘806 Patent, and Figures 51<sup>ad</sup><sup>12</sup> and 52<sup>au</sup> of the ‘123 Patent, reveal cross hairs with white dots at the intersection of at least the primary cross-hairs. (‘608 Patent fig. 31; ‘806 Patent fig. 31; ‘123 Patent Figs. 51<sup>ad</sup>, 52<sup>au</sup>.) None of the patents describes the specific figure in detail. The illustration appears similar to Figure 12 of the ‘595 Patent, which depicts a black “aiming dot” superimposed over the intersection of the primary vertical and horizontal cross-hairs. The white dots in Figure 31, Figure 51<sup>ad</sup>, and Figure 52<sup>au</sup> are easily identified as a white aiming dot superimposed over the intersection of various primary and secondary cross-hairs, refuting Plaintiffs’ contention Figure 31, Figure 51<sup>ad</sup>, or Figure 52<sup>au</sup> provide evidence “cross-hairs” are not continuous.

Figure 35 of the ‘608 Patent and the ‘806 Patent portrays the markings of a two-part illuminated reticle. (‘608 Patent fig. 35, col. 9 ls. 35-38; ‘806 Patent fig. 35, col. 9 ls. 42-45.) The

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<sup>12</sup>Plaintiffs improperly identify the illustration as Figure 51l.

interior portions of the primary vertical and horizontal cross-hairs are white. However, Figures 35*a* and 35*b*, which depict the same markings under daylight and low-light conditions, reveal the interior portions of the primary vertical and horizontal cross-hairs are black. (‘608 Patent figs. 35*a*, 35*b*, col. 9 ls. 39-46; ‘806 Patent figs. 35*a*, 35*b*, col. 9 ls. 46-53.) The detailed description of Figure 35 explains a portion of the markings are filled in with a reflective material that illuminates when a light source is turned on, allowing the user to see the illuminated markings at night. (‘608 Patent col. 12 l. 63-col. 13 l. 2; ‘806 Patent col. 13 ls. 5-11.) That the interior portions of the primary cross-hairs of Figure 35 are a different color when illuminated does not mean the cross-hairs are uninterrupted, as evidenced by the depiction of the cross-hairs in Figures 35*a* and 35*b*.

Finally, Figure 51*ai* of the ‘123 Patent reveals continuous vertical and horizontal lines intersecting with at least one other line, one of which appears to be segmented or dashed, and various dots and numbers. (‘123 Patent fig. 51.) Nowhere in the description of Figure 51*ai* are any of the lines or symbols identified as “cross-hairs,” making the figure irrelevant to the proper construction of the term “cross-hairs.”

The court finds the new matter in the ‘608 Patent, the ‘806 Patent, and the ‘123 Patent identified and relied on by Plaintiffs irrelevant to the construction of the term “cross-hair” as it appears in the ‘595 Patent. Alternatively, the court is not convinced the new matter requires a deviation from the court’s definition of “cross-hair.” Consequently, the court defines, for the purposes of all relevant patents, “cross-hair” means “a continuous line in a reticle that intersects a least a second continuous line to create an aiming point.”

## II. “Primary Vertical Cross-Hair”

The parties have, for the most part, agreed on the definition of “primary vertical cross-hair”

and disagree only on including a reference to the prominence and length of the primary vertical cross-hair. Plaintiffs' proposed definition is "the vertical cross-hair which bisects the reticle by passing through its ocular center and intersects the primary horizontal cross-hair." (Pls.' Brief at 8.) Leupold, on the other hand, argues the proper definition is "the most prominent and longest vertical cross hair on a reticle, which bisects the reticle by passing through its ocular center and intersects the primary horizontal cross-hair." (Def.'s Brief at 17.)

The parties have stipulated that "primary horizontal cross-hair" means "[t]he most prominent horizontal cross-hair, which intersects with the primary vertical cross-hair." (Joint Claim Construction Chart, ECF No. 34 ("Chart"), at 2.) Neither party offers any justification for defining "primary vertical cross-hair" more restrictively than "primary horizontal cross-hair." The only distinction between the primary vertical and horizontal cross-hair found in the patents-at-issue is that the primary vertical cross-hair intersects the optical center<sup>13</sup> of the reticle or disc while the primary horizontal cross-hair intersects the primary vertical cross-hair. ('595 Patent col. 3 ls. 3-8, 28-32, col. 5 ls. 60-64; '608 Patent col. 3 l. 66- col. 4 l. 3, col. 4 ls. 50-55; '806 Patent col. 4 ls. 2-5, 53-59, col. 17 ls. 57-62.) Consequently, the court finds the proper definition of "primary vertical cross-hair" is "the most prominent vertical cross-hair which bisects the reticle by passing through its ocular center and intersects the primary horizontal cross-hair" which incorporates the relevant portion of the definition of "primary horizontal cross-hair" as well as the additional restriction placed on the "primary vertical cross-hair" by the patents-at-issue.

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<sup>13</sup>At least one patent-at-issue also references the primary vertical cross-hair "intersecting at a point offset from the optical center of the disc." ('608 Patent col. 4 ls. 50-53.)

### III. “Reticle”

The parties agree that “reticle” means an optical disc or wafer used to help a shooter aim at a target. The disagreement is centered on whether the reticle must contain “markings” as suggested by Plaintiffs, or the “network of fine lines or fibers” proposed by Leupold. (Pls. Brief at 3; Def.’s Brief at 8.) Here, the court finds the broad term “markings” properly describes the information contained on a reticle.

Leupold’s requirement that a reticle contain a network of fine lines or fibers is not supported by the language of the patents-in-suit. First, as noted above, the term “fiber” refers more to the method of placing the line on the reticle, not the line itself. Accordingly, inclusion of the term “fiber” is inappropriate.

Second, the patents-in-suit do not describe the thickness of the lines as “fine.” To the contrary, the ‘595 Patent provides cross-hairs are of a “predetermined thickness” and explain “the thickness of the lines are also preferably determined with reference to the rangefinding scale used” and “rangefinder markings can, if desired, be drawn to a different scale from that provided for the line thickness and spacing between the secondary vertical cross-hairs and secondary horizontal cross-hairs.” (‘595 Patent at 1, col. 3 ls. 28-41, col. 6 ls. 62-63, col. 7 ls. 33-36, col 14 ls. 5-22.) Use of the term “fine” is subjective and capable of many interpretations, making it undesirable as part of a definition.

Finally, the reticles are described to contain information other than cross-hairs or rangefinders, which are not lines or parts of a network. For example, the ‘595 Patent describes ghost rings, depicted as a thick circle in Figure 11; aiming dots, depicted as a dark dot in Figure 12; and unique symbols, depicted as numbers in Figure 10. (‘595 Patent figs. 10-12, col. 4 ls. 44-45, col. 6

ls. 31-16, col. 12 ls. 37-56.)

While each claim describes the specific information contained in the reticle with regard to such claim, the generic term “markings” best describes the type of information that may be contained on a reticle. In fact, a description of the reticle in each patent references “markings.” In the ‘595 Patent, the reticle has primary cross-hairs, a plurality of secondary cross-hairs, and rangefinder markings. (‘595 Patent col. 2 l. 64-col. 3 l. 13.) Similarly, the later patents-at-suit provide: “the reticles of the present invention provide markings or other indications.” (‘608 Patent col. 3 ls. 45-46; ‘806 Patent col. 3 ls. 48-49; ‘123 Patent col. 3 ls. 43-44.) Consequently, the court finds “reticle” is properly defined as “an optical disc or wafer containing markings or lines, or both, used to help a shooter aim at a target.”

#### IV. “Intersecting”/“Intersection”

Leupold urges construction of the terms “intersecting” and “intersection” to mean a crossing of two or more things and the point at which two things cross, respectively, while Plaintiffs contend the terms should also include the implied crossing of dashed or interrupted lines. References to “intersect,” “intersecting,” or “intersection” are limited primarily<sup>14</sup> to cross-hairs, which have been defined as continuous lines. Consequently, Plaintiffs’ attempt to include dashed or interrupted lines in the definition is unwarranted. The court adopts Leupold’s suggested definition.

#### V. “Rangefinder Markings”/“Rangefinding Markings”/“Rangefinder”

The issues between the parties with regard to the proper construction of the terms “rangefinder markings,” rangefinding markings,” and “rangefinder” (collectively referred to as

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<sup>14</sup>The ‘595 Patent also uses the term “intersect” or “intersecting” with regard to a “rangefinder bar,” “rangefinder arm,” or “rangefinder marking.” (‘595 Patent col. 4 ls. 57-63, col. 7 ls. 48-61, col. 14 ls. 28-33.)

“Rangefinder”) relate to the general description and location of the Rangefinder. Plaintiffs’ proposed definition of Rangefinder is “markings on a reticle that are used to determine the distance to a target.” (Pls.’ Brief at 12.) Leupold contends Rangefinder should be defined to mean “markings forming a numbered scale used to determined the distance to a target. (Def.’s Responsive Claim Construction Brief, ECF No. 44 (“Def.’s Resp.”) at 10.)

The claims of the ‘595 Patent do not define Rangefinder with the exception of language that allows the vertical and horizontal Rangefinder arms to be “superimposed” on the primary vertical and/or horizontal cross-hair. (‘595 Patent at 1, col. 7 ls. 24-26, 48-50, 56-57, col. 14 ls. 34-36, 41-42.) The background of the ‘595 Patent explains the need for a “reticle which includes an optical rangefinder which permits a skilled shooter to rapidly and accurately identify the range to any target of estimable size.” (‘595 Patent col. 2 ls. 53-54.) Similarly, the description of the invention states “[t]he rangefinder can be used to determine the range to the target. . . .” (‘595 Patent col. 12 ls. 27-28.)

A more detailed description of Rangefinder as depicted in Figure 2 provides:

the rangefinder includes a vertical arm and an intersecting horizontal arm. Vertical arm is provided with a plurality of even-spaced horizontal cross-hairs which intersect vertical arm; horizontal arm is provided with a plurality of even-spaced, preferably downward extending cross-hairs. At least some of the range finding cross-hairs are marked to correspond to a scale useful for determining range.

(‘595 Patent fig. 2, col. 6 ls. 25-33.) The spacing between the Rangefinder cross-hairs is based on a scale. (‘595 Patent col. 13 ls. 50-52, col. 14 ls. 48-51. ) All of the ‘595 Patent drawings include numbers which relate to Rangefinder cross-hairs and correspond to the given scale. (‘595 Patent figs. 2, 10–15.) This additional description of Rangefinder as depicted in the ‘595 Patent reveals Plaintiffs’ proposed definition is too general. Rather, for the purposes of the ‘595 Patent,

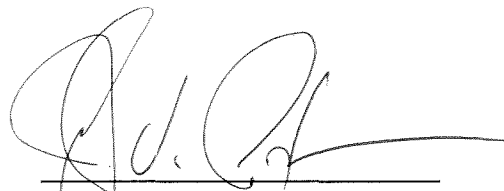
Rangefinder consists of a table or grid comprised of a vertical and horizontal arm, a plurality of cross-hairs intersecting such arms on an established scale, and numbers attributed to cross-hairs based on the scale. Consequently, Leupold's proposed definition more accurately describes "Rangefinder." The court defines "Rangefinder" to mean "markings on a reticle forming a numbered scale used to determine the distance to a target."

### *Conclusion*

The terms at issue should be construed as follows:

1. "cross-hair" is "a continuous line in a reticle that intersects <sup>at least</sup> a second continuous line to create an aiming point";
2. "primary vertical cross-hair" is "the most prominent vertical cross-hair which bisects the reticle by passing through its ocular center and intersects the primary horizontal cross-hair";
3. "reticle" is properly defined as "an optical disc or wafer containing markings or lines, or both, used to help a shooter aim at a target";
4. "intersecting" means "a crossing of two or more things" and "intersection" is "the point at which two things cross"; and
5. "rangefinder markings," "rangefinding markings," and "rangefinder" refers to "markings on a reticle forming a numbered scale used to determine the distance to a target."

DATED this 15<sup>th</sup> day of May, 2019.



JOHN V. ACOSTA  
United States Magistrate Judge